

Appln. No. 9/922,059

Attorney Docket No. 10541-562
Visteon Reference No. V200-0618**II. Remarks**

Claims 1, 3-20, and 35 of the present application are rejected and pending. By this paper, Applicants amend claims 1 and 35. No new matter has been added. Reconsideration and a withdrawal of all rejections are respectfully requested.

Claim Objections

Responsive to the objection of claim 35, line 3 of claim 35 has been amended to read, "thermoplastic *sheets*". (Emphasis added). Therefore, the objection should be withdrawn.

Rejections under 35 U.S.C. § 102(b) and alternatively under § 103(a)

Responsive to the rejections of claims 1, 3, 4, 10, and 35 under 35 U.S.C. § 102(b), *Coffman* (US Patent No. 4,790,972) fails to teach or suggest each and every element recited in independent claims 1 and 35 as amended. Furthermore, *Coffman* fails to render obvious claims 1 and 35.

Claims 1 and 35 have been amended to recite the step of forming the group of thermoplastic sheets into a container *after heating the group of thermoplastic sheets to the second temperature*. (Emphasis added). The first paragraph on page 12 of the original Application as filed discloses that the thermoplastic sheets are controlled to different temperatures to optimize *subsequent* processing in the forming stage 18. Therefore, no new matter is added by these amendments.

Coffman discloses the step of heating billets, stacking and forming the billets into a multi-layer component, and further forming the component into a container while simultaneously heating the component. (*Coffman*, col. 1, lines 4 through 28, Figure 1). Therefore, neither of the two forming steps occurs after the thermoplastic sheets have been heated to a second temperature.

Furthermore, the thermoplastic sheets disclosed in *Coffman* are not formed into a low permeation plastic container, as recited in claims 1 and 35. Rather, the containers disclosed in *Coffman* are open-ended juice cups. (*Coffman*, col. 2, lines 56 through 64).

Therefore, *Coffman* fails to teach or suggest each and every element recited in independent claims 1 and 35 as amended.

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Furthermore, there is no suggestion or motivation to modify the process in *Coffman* to include the steps recited in claims 1 and 35. The forming steps in *Coffman* do not occur after first and second heating steps, and the container disclosed in *Coffman* is not for use in an application where low permeation is desirable.

Thus, independent claims 1 and 35 are not anticipated or rendered obvious by *Coffman*. Claims 3, 4, and 10 depend generally from claim 1. Therefore, claims 1, 3, 4, 10, and 35 are allowable for the reasons provided above.

Rejections under 35 U.S.C. § 103(a)

Responsive to the rejections of claims 1, 3-7, 9-20, and 35 under 35 U.S.C. § 103(a) based on *Ekendahl* (US Patent No. 6,372,176) in view of *BE 885162 Abstract* and either one of *Cobb* (US Patent No. 4,431,404) or *GB 1,160,779*, further in view of *Mannion* (US Patent No. 5,961,914), the Examiner has not established a *prima facie* case of obviousness for claims 1, 3-7, 9-20, and 35.

Claims 1, 3-7, 9, 10, and 35

Claims 1 and 35 recite heating by convection a plurality of thermoplastic sheets, removing a group of thermoplastic sheets from the plurality of thermoplastic sheets, and heating the group of thermoplastic sheets to a second temperature.

As stated by the Examiner in the above-mentioned Paper, *Ekendahl* does not disclose preheating a plurality of sheets in convection ovens before providing the first and second sheets to heaters in the heating stations. (Paper No. 20050202, Page 4, lines 1 through 3). Furthermore, no motivation exists to combine *Ekendahl* and the *BE 885162 Abstract* to cure the deficiencies of *Ekendahl*. For example, the *BE 885162 Abstract* does not disclose the formation of a container of any type, let alone a low permeation container. Furthermore, the *BE 885162 Abstract* discloses the step of heating a core of the sheet such that the core has a greater temperature than the surface. Although the logistics of this step are not disclosed in the abstract, it would be impossible to heat the core of a sheet to a temperature higher than the exterior of the sheet by conventional convection heaters. Conversely, *Ekendahl* teaches heating thermoplastic sheets using "conventional heaters, such as infrared radiators" and "heating devices capable of heating thermoplastic materials...." (See

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Ekendahl, Col. 5, lines 53 through 63). Therefore, whatever undisclosed steps are used in connection with the preheating step in the *BE 885162 Abstract*, they are simply not contemplated by *Ekendahl*.

Assuming *arguendo*, that *Ekendahl* and the *BE 885162 Abstract* can be properly combined, the combination simply does not teach or suggest all the elements of the amended claims 1 and 35. For example, the *BE 885162 Abstract* teaches that a first portion of the sheet (the core) is first heated and that a second portion of the sheet (the surface) is then heated. Therefore, the entire thermoplastic sheet in the *BE 885162 Abstract* is being heated to a first temperature by heating different portions thereof separately. In contrast, the present application teaches a method of pre-conditioning the thermoplastic sheets so that "[o]nce the pre-processing temperature is reached, the thermoplastic sheets are **uniformly** maintained at that temperature until needed." (See page 14, lines 11 through 13; emphasis added).

The remaining references cited by the Examiner (*Cobb*, GB 1,160,779, and *Mannion*), fail to cure the deficiencies of *Ekendahl*, even if properly combinable therewith. For example, *Cobb* discloses only one heating step. Furthermore, the heating step is to flow hot oil between the platens P submerged therein. (*Cobb*, col. 6, lines 28 through 34). Due to the drastically different heating methods disclosed in *Ekendahl* and *Cobb*, the references are not properly combinable. Similarly, GB 1,160,779 discloses only one heating step. (GB 1,160,779, col. 1, lines 15 through 28). Finally, *Mannion* also only discloses one heating step. (*Mannion*, col. 3, lines 28 through 50).

Therefore, independent claims 1 and 35 and claims 3-7, 9, and 10, which depend generally therefrom, are allowable for the reasons discussed above.

Claims 11-20

Claim 11 recites raising the temperature of a plurality of thermoplastic sheets to a pre-processing temperature in a convection oven within a pre-conditioning stage, indexing at least two, but less than all, of the thermoplastic sheets to a final heat stage, and further increasing the temperature of the at least two thermoplastic sheets to a processing temperature.

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As stated above, no motivation exists to combine *Ekendahl* and the *BE 885162 Abstract* to cure the deficiencies of *Ekendahl*. For example, the *BE 885162 Abstract* does not disclose the formation of a container of any type, let alone a low permeation fuel tank. Furthermore, the *BE 885162 Abstract* discloses the step of heating a core of the sheet such that the core has a greater temperature than the surface. Although the logistics of this step are not disclosed in the abstract, it would be impossible to heat the core of a sheet to a temperature higher than the exterior of the sheet by convection. Conversely, *Ekendahl* teaches heating thermoplastic sheets using "conventional heaters, such as infrared radiators" and "heating devices capable of heating thermoplastic materials...." (See *Ekendahl*, Col. 5, lines 53 through 63). Therefore, whatever undisclosed steps are used in connection with the preheating step in the *BE 885162 Abstract*, they are simply not contemplated by *Ekendahl*.

Assuming *arguendo*, that *Ekendahl* and the *BE 885162 Abstract* can be properly combined, the combination simply does not teach or suggest all the elements of the amended claim 11. For example, the *BE 885162 Abstract* teaches that a first portion of the sheet (the core) is first heated and that a second portion of the sheet (the surface) is then heated. Therefore, the entire thermoplastic sheet in the *BE 885162 Abstract* is being heated to a first temperature by heating different portions thereof separately. In contrast, the present application teaches a method of pre-conditioning the thermoplastic sheets so that "[o]nce the pre-processing temperature is reached, the thermoplastic sheets are **uniformly** maintained at that temperature until needed." (See page 14, lines 11 through 13; emphasis added).

The remaining references cited by the Examiner (*Cobb*, GB 1,160,779, and *Mannion*), fail to cure the deficiencies of *Ekendahl*, even if properly combinable therewith. For example, *Cobb* discloses only one heating step. Furthermore, the heating step is to flow hot oil between the platens P submerged therein. (*Cobb*, col. 6, lines 28 through 34). Due to the drastically different heating methods disclosed in *Ekendahl* and *Cobb*, the references are not properly combinable. Similarly, GB 1,160,779 discloses only one heating step. (GB 1,160,779, col. 1, lines 15 through 28). Finally, *Mannion* also only discloses one heating step. (*Mannion*, col. 3, lines 28 through 50).

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Therefore, independent claim 11 and dependant claims 12-20, which depend generally therefrom, are allowable for the reasons discussed above.

Claim 8


Responsive to the rejection of claim 8 under 35 U.S.C. § 103(a) based on *Coninck* (US Patent No. 6,328,842). *Coninck* does not teach or suggest all the elements of the rejected claim 8. Since claim 8 is dependent from claim 1, claim 8 is allowable for the reasons provided above.

Conclusion

In view of the above remarks, it is respectfully submitted that the present form of the claims are patentably distinguishable over the art of record and that this Application is now in condition for allowance. Therefore, Applicants request that the Examiner grant early allowance of these claims. The Examiner is invited to contact the undersigned attorney for the Applicants via telephone number (734) 302-6000, if such communication would expedite this Application.

Respectfully submitted,

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